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ROH et al.(10) **Pub. No.: US 2017/0098680 A1**(43) **Pub. Date: Apr. 6, 2017**(54) **STACKED IMAGE SENSOR****Publication Classification**(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD.**, Suwon-si (KR)(51) **Int. Cl.**
H01L 27/146 (2006.01)(72) Inventors: **Sookyung ROH**, Seoul (KR); **Seokho YUN**, Hwaseong-si (KR); **Sunghyun NAM**, Yongin-si (KR)(52) **U.S. Cl.**
CPC **H01L 27/14647** (2013.01); **H01L 27/1461** (2013.01); **H01L 27/14605** (2013.01); **H01L 27/14621** (2013.01); **H01L 27/1463** (2013.01); **H01L 27/14623** (2013.01)(73) Assignee: **SAMSUNG ELECTRONICS CO., LTD.**, Suwon-si (KR)(57) **ABSTRACT**(21) Appl. No.: **15/280,252**(22) Filed: **Sep. 29, 2016**(30) **Foreign Application Priority Data**

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A stacked image sensor includes a first photoelectric conversion layer including a plurality of first photoelectric conversion regions; a second photoelectric conversion layer disposed on the first photoelectric conversion layer, and including a plurality of second photoelectric conversion regions; and a plurality of color filters disposed on the plurality of second photoelectric conversion regions, wherein at least one of the plurality of first photoelectric conversion regions includes a plurality of third photoelectric conversion regions that perform auto-focusing.

